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AMERICAN PSYCHOLOGICAL ASSOCIATION

REPORT OF THE COMMITTEE

ON THE

ACADEMIC STATUS OF PSYCHOLOGY

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To the American Psychological Association:

Psychology has found difficulty in establishing itself in some of our colleges and universities as an academic subject. Its subject matter is closely related to the interests of several other departments. From the standpoint of each of these departments psychology is merely preliminary to their own needs—a stepping stone to something higher.

This failure to recognize the study of psychology as constituting an end in itself is perhaps most noticeable on the part of philosophers. To them the chief purpose of mental analysis is found in its epistemological implications. In many of our American colleges, and even in some of our larger universities, the so-called introductory course in psychology is conducted solely with this in view. In other institutions, more generally in the west, the science of education claims psychology as its own. In such cases the central motive of the first course in psychology, probably of the whole psychological curriculum, is its value to the prospective teacher. The analysis of mental processes is studied only so far as it throws light on educational methods and theory.

In certain cases also we find a tendency to subsume psychology under the general anthropological sciences. In the A. A. A. S. this attempt to yoke psychology and anthropology together, like the traditional horse and ox, has proved irksome to one member of the team. Finally, the biological sciences have staked extensive claims in two separate quarters of the psychological domain. Some biologists treat mental phenomena as mere correlates of physiological processes, a view which finds expression in the sectional division of the British Association. Others, including a number of psychologists also, regard psychological phenomena as fully explicable in terms of behavior, and as constituting therefore a phase of biological science. The character of the American Psychological Association and the productivity of American psychologists in the aggregate effectively refute these views; they testify to the fact that a large and thoughtful company of trained workers regard psychological research and study as an end in itself.

In view of the impediments which have hindered the development of a systematic program of psychological courses at many American institutions of learning, your President and Council have

requested the present interim committee to consider the Academic Status of Psychology. The committee has confined its work to the problems of undergraduate training. It has investigated the status of psychology at all the colleges and universities represented in the Association, and all others in the list of 118 institutions recommended by the Carnegie Foundation to foreign universities on account of the quality of their bachelors' degrees; a few other colleges were included whose work in psychology seemed worthy of consideration.

The course, staff, and laboratory facilities at each institution were listed from the catalogues and sent to the responsible head in psychology at the institution for verification. Accompanying the list was a questionnaire covering certain points of special interest to the inquiry. The same questionnaire, without the list, was sent to all other members of the Association of professorial rank teaching psychology in any college or university. The response was very general, and the replies indicated care and serious consideration in preparing the answers.

The data which the committee have tabulated cover 165 institutions; in 124 cases they were verified by representatives of the institution itself; in 41 cases where the slips were not returned the catalogue data were used without verification; the latter are all small institutions with few courses, and there was little chance of error. A few institutions which we desired to include were omitted owing to our inability to secure information.

The committee did not consider itself sufficiently expert in the psychology of testimony to weight and correct the replies, except for the exclusion of obvious errors and misconstructions.¹ The data on which most of our tables are based appear to be reliable. In certain instances, such as A 6, B 7, C 3, and E 2, the personal equation should be allowed for. In many cases the tables presented speak for themselves. We shall confine the discussion to the following points.

¹ According to agreement individual opinions are published anonymously. But in order to distinguish between the standpoints of *large and small institutions*, the quotations from representatives of the 22 universities belonging to the Association of American Universities are marked (u). This criterion is objective, though not always decisive. Opinions of other members of the American Psychological Association are marked (m); those of non-members (n).

The committee wishes to express its thanks to the members of the Association and others whose coöperation made this report possible, and to Dr. John T. Metcalf and Mrs. L. V. Silvester for careful compilation of a great mass of data.

Progress of Psychology

In 1894 Delabarre reported¹ 27 laboratories in the United States and Canada, of which 8 or 9 were devoted mainly to instruction, 5 to 8 attempted some special research work, while the remainder combined instruction and research in equal proportions. In 1904 Miner reported² 54 laboratories on this continent. In 1914 we find 88 laboratories in the United States and Canada, of which 24 have 5 rooms or more.

In 1893 the laboratory equipment was reported to be worth \$30,000; in 1914 the equipment at 56 universities was estimated at a value of \$163,000.³

In 1904 3 or more courses of a psychological character were offered at 62 institutions; in 1914 courses involving 9 semester hours or more were offered at 111 institutions. In 1894 the psychological courses were generally regarded as an integral part of the department of philosophy. In 1904, according to Miner, psychology had become organized as an entirely separate department in 4 universities, and there were professors or assistant professors bearing the title in psychology in about 30 others. In 1914 psychology constitutes a distinct department at 34 institutions; it has partial administrative autonomy or recognition at many others; 95 professors or assistant professors bear the title in psychology.

Relation to Other Departments

Administration.—In colleges with small faculties it would be unwise, if not impossible, to organize separate "departments" in each branch. Even where the college faculty is relatively large, the system of administration sometimes requires the grouping of psychology with some other department. Yet with all due allowance for these practical exigencies, the replies show that in many cases psychology has not been granted the degree of administrative autonomy necessary for the proper development of its courses.

One writer says, "Where psychology is taught in the department of philosophy they impute philosophical treatment to the subject

¹ *Année psychologique*, I, 209.

² *Science*, N. S., 20, 299. Cf. Ruckmich, in *Amer. J. of Psychol.*, 1912, 23, 517.

³ Only those reporting a value over \$500 are included, and in every case the *minimum* estimate is taken.

which they in turn construe to mean metaphysical treatment, even though nothing could be farther removed from the truth" (n). According to another, "Psychology [here] is also handicapped in that whereas most of the subjects in the first two years are prescribed, psychology is elective and is further tied up with logic to form a *whole* course. . . . All this I feel could be removed if the head of the department of philosophy were favorable to psychology as a science and not as a 'mere aspect' of philosophy" (n).

Others say: "In our institution we need a *systematic curriculum* in psychology for students of psychology; it is now an adjunct to philosophy" (u). "Psychology in——is a separate department but it does not give the introductory course, which remains under the department of philosophy. This arrangement was due to rather special conditions" (u). "Psychology should be freed from philosophy" (m). "Should prefer department to be called 'philosophy and psychology' and have courses listed separately" (u). "What seems mostly needed in some institutions is the abolition of those large, inclusive departments, with one 'head professor' subjugating everybody else" (u).

On the other hand, one writer says, "There is some duplication of work, but there are absolutely no inter-departmental jealousies and I don't think anything would be gained by establishing new departmental boundaries" (m). Another says: "I do not feel that any subjects in our college curriculum, least of all psychology at the present stage, should aim to be departmental" (n).

Your committee recognizes the necessity for a variety of administrative arrangements, depending on the size of the institution and its general plan of organization. We believe, however, that in the determination of courses in psychology the psychological staff should enjoy as much autonomy as is accorded to philosophy, education, or biology. The psychologists should also have a definite and adequate share in the library funds.

Academic relation.—The academic relation of courses is distinct from the administrative problem. Speaking of the academic relation, one writer says, "There is still in the minds of some of our faculty a confusion as to the real place that psychology should occupy in an undergraduate course. I sometimes feel that the course of study committee hardly knows how to name the child. They hardly see how they can regard it as a science, and yet somehow it does not fit

in with literature, history, and the like, so they seem inclined to give it a sort of a *sui generis* name and call it just psychology" (n). According to others, "There is . . . great reluctance, both within and without the institution to conceding the subject any standing as a *science*" (m). "This year the question has been brought up as to whether a course in laboratory psychology can be held to satisfy point for point the college requirement for scientific work done during the course" (m).

Border-line territory.—There is the further question of properly assigning a place in the curriculum to such border-line territory as educational psychology, philosophy of mind, physiological psychology, and social psychology. In these courses other departments share the interest with us, and psychologists have no right to insist upon some particular arrangement without the consent of the joint partner. Yet it were well for us to study the question thoroughly and formulate an opinion. The answers received by the committee indicate a decided disagreement among psychologists.

Take, for example, the courses in educational psychology [E 8]: "It is my belief that it is a more ideal arrangement for educational psychology to be organized through the department of psychology. . . . It seems distinctly bad to develop another laboratory in connection with education, and research work would require such an additional laboratory" (u). "Educational psychology should be under direction of psychological department" (m). "Less duplication and better work will result" (m). "Decidedly so" (m).

On the other hand: "We are not sure that we have not got too much in having the educational psychology assigned to the department of psychology" (m). "The feeling of my colleagues has been against the taking over of application from education" (u).

As regards physiological psychology: "All of my work in psychology I correlate very closely with physiology" (n). "It is our plan to secure a very brief elementary introductory course in biology for freshmen, which shall serve as preparation for psychology, taking up the nervous system, evolution, and kindred subjects" (u). "I had a full-year course in physiological psychology but gave it up because (chiefly): (1) Structure and functions of nervous system and sense organs are treated in both introductory courses and reviewed when necessary in the advanced courses; (2) for explanation, nervous basis of mental phenomena is given where possible in all cases; (3)

students needing more physiology are sent to the appropriate departments. I doubt that there is a real specific place for a course called physiological psychology" (u). "I am trying to have biology required as a prerequisite to Psychology I" (m). "The department of biology teaches the neurology needed in my [second] course" (n).

In 46 places where courses of a psychological character were offered in other departments, 21 correspondents favored the transfer of such courses to our department and 25 opposed the transfer [B 4, E 9]. Our inquiry [E 6-8] concerning the relations between courses in this and other departments referred only to the proper coördination of the curriculum. Many of the replies included the administrative problem, so that the figures do not admit of tabulation.

We believe it well worth while for the Association to discuss the academic aspect of this question, namely, whether or not in the larger institutions our department should aim to offer a complete psychological curriculum under its own direction or merely see that certain important border-line courses be available under other departments.

The determination of the relationship of courses in psychology to those in physiology, anatomy, education, sociology, etc., is complicated by the strict departmental lines existing in most American institutions. It raises the question of the possibility of greater co-operation among departments, if not of courses under joint administrative control. In smaller colleges particularly something might be effected if the larger resources of laboratories of physics, biology, etc., could be put at the temporary disposal of work in psychology.

Into this field it is not, however, the province of the committee to go, beyond suggesting the inquiry whether the time may not have come in American colleges for more coöperation of departments in planning and offering courses. Psychology in particular draws upon and is drawn upon by an unusually wide range of subjects, and its adequate development will in some cases demand an expensive duplication unless coöperative arrangements can be made.

First Course in Psychology

Should it be required or elective?—There is great diversity in practice. Elementary psychology is required for all students in nearly one-third of our institutions, and is elective in somewhat more than one-third. In nearly one-third of the institutions replying, the course is an alternative requirement, or it is prescribed for certain

degrees but not for others [A 2]. One writer quoted above (n) deplores the fact that psychology is elective at his university whereas most of the subjects in the first two years are prescribed. Another urges the following cogent objections to a required course:

“(1) It is not popular unless made too entertaining to be seriously scientific.

(2) Such a course tends to lay too great emphasis on ethical and practical applications to personal life and upon applied psychology.

(3) The elections of further work are greatly reduced for the above and for other reasons.

(4) Such a course cannot determine as sharply as it should the prerequisite courses. For instance, some general work in physiology would save much time and labor in explaining the structure of the sense organs and nervous system” (n).

These two attitudes are not really incompatible, and the committee is inclined to endorse them both. Where the undergraduate curriculum is largely required, we believe that a first course in psychology, planned and conducted by psychologists, should be required along with the fundamental courses in other sciences. On the other hand, where the plan of the curriculum is mainly elective, better results seem likely to be attained by making *all* psychology elective, including even the first course.

*How early in the undergraduate program should it be offered?—*The questionnaire did not touch upon this point, and the catalogue data proved too vague to furnish reliable statistics. One writer (u) urges that psychology should be open to freshmen. In a few cases it is not offered until senior year. We believe the general consensus of opinion among psychologists would favor making the first course available to second-year men in institutions where a number of other courses in psychology are offered, and that otherwise it should be available as early as junior year.

Length of course.—In about two-thirds of the institutions answering the questionnaire the first course occupies 3 or 4 semester hours; in nearly all the remainder it is a 6 semester-hour credit [A 1]. In one case it covers 12 semester hours.¹ One writer says, “I feel

¹ In the tables the courses are grouped by 4-hour steps, although 3-hour units preponderate. By extending our groups to 4 semester hours the 5-hour courses of 3-term institutions are more fairly evaluated.

that a full-year course in the introductory work is better than a single semester" (n). Others say: "The first course should last an entire year; contain at least one laboratory period a week; give lectures and reading in the applied field, and constitute a real introduction to social psychology generally, besides being a systematic psychology" (m). "We have come to the conclusion that a semester's course in the introduction to psychology, three times a week, is wholly inadequate for further work in psychology or education. Such a course can only serve as a psychological introduction to philosophy, if at all" (u). One writer (u) expresses an interest in developing a course which shall run through 4 semesters.

Your committee is inclined to lay considerable stress on these opinions. We believe that despite the prevailing practice, the rudiments of psychology cannot be adequately covered in a course of 3 semester hours; that where possible a full-year course should be devoted to introductory psychology, and that where such an arrangement is not feasible an advanced general course should follow the introduction.

General emphasis.—Several different conceptions prevail concerning the direction that the first course should take. Some believe that more emphasis should be laid upon facts, others would emphasize scientific generalizations and theory; still others would devote considerable time to technique and laboratory drill; while a fourth and rather numerous group lay stress upon the practical side, and insist on bringing the course into closer relation with life. The following replies illustrate some of the different standpoints.

"Work usually too theoretical—not based sufficiently on known facts" (m). "The lecture course for beginners should be based upon the established facts of psychology, should abstain from wandering far afield from these facts, excepting in cases where it seems wise to familiarize the student with *well-established theory*, and should see to it that the students in the course possess a definite *knowledge* of these facts" (u).

"[Psychology is] usually taught in the introductory course too much as detached descriptive matter, and not sufficiently related to the laboratory of the *mind*—hence, psychological *attitude* is not developed" (n). "The average course in psychology is something apart from life" (m). "In my experience and limited observation, psychology is going the way of physics—becoming too technical in

the beginning courses" (n). Further illustrations will be given under "Logical sequence of advanced courses."

Your committee will not attempt an *ex cathedra* judgment on this complex question. We believe the opinion of the majority and especially of the more experienced members of the Association would be against laying great stress on laboratory training in the first course, except as a supplementary elective or alternative course, expressly designed to meet the needs of future laboratory students. This plan is in operation at several institutions. We believe further that the general consensus would favor emphasizing *facts* in the introductory course, and building inductions and theory upon them. We believe the Association is much divided on the question of emphasizing or ignoring in the first course the practical applications of psychology and its relations to life. This would furnish a valuable topic for debate at some future meeting.

Method of instruction.—Replies indicate that in many institutions the lectures are largely emphasized in the first course, while in many others recitation or oral quizzes predominate. In many cases the proportion is 2 to 1 one way or the other. There is no marked preference, as a whole, for one method or the other, and in very few institutions is the course "mainly" lecture or "mainly" recitation.

One writer says, "As a student both in college and graduate school I regarded the lecture courses with favor and in any recitation course that I ever attended became impatient at the waste of time connected with the performances of the slower students. . . . I have been surprised at the strength of the sentiment on the side of the recitations. There is in my own case the pertinent fact, to be sure, that a course conducted quite largely by the recitation method gave me sufficient interest in psychology to start me toward it as a profession. . . . I have adopted the practice of giving to students an outline of my own and asking them to prepare to discuss its topics by reading in a variety of books" (m).

In the opinion of another, "Recitation and discussion should be used more than the lecture method in teaching undergraduate courses" (n). The written test is rather generally used, and 35 of the introductory courses involve actual laboratory experiments [A 4].

Your committee will not venture to express an opinion on the broad educational problem of lecture versus recitation method, further than to recommend that where lectures predominate the oral quizzes

be given to groups sufficiently small to insure that each student be reached in an adequate manner.

Scope.—In most of the institutions which reported, the first course follows largely the scheme of the “average text” [A 3]. In view of the marked difference between texts the figures are not very enlightening, but they indicate that the instruction is mainly in “general human psychology.”

It is beyond the province of this committee to discuss the relative merits of standard texts. We may properly call attention, however, to the unfortunate tendency, in a few cases, to stress popular and sensational topics—which is quite another matter from emphasizing the practical implications of psychology; and we note that the custom still prevails of treating our introductory course as a philosophical propædæutic [A 5].

Your committee believes that in small institutions, where psychology is confined to a single course, this course should occupy at least 6 semester hours, and that in addition to the ordinary text-book presentation it should touch upon the genetic standpoint and interpretation, as well as upon experimental methods and laboratory demonstrations. We believe that in no case should the introductory course in psychology be planned to serve (except incidentally) as an introduction to philosophy, educational science, or sociology.

In large institutions the scope of the first course inevitably depends on the personality of the leader in the department; and we believe that it would be prejudicial to the development of psychology to attempt uniformity among such universities. The publication of topical outlines of the introductory courses given at the larger universities would be extremely helpful to smaller institutions.

Advanced Courses

Special or general.—A fundamental problem in developing the psychological curriculum is whether courses following the introduction should be broad and general or should divide along specialized lines.

One writer thinks, “There should be a more complete separation of technical and general courses” (m). Another says, “We do not much believe in special courses. Or rather we think that the place for them is in the graduate school. . . . I do not divide psychology

up into 'branches,' as if into separate sciences" (u). Another question, "Whether psychology has not begun to suffer, at least to the undergraduate mind, from an immodesty of adjectives. I submit that in my opinion an undergraduate might be urged to give a little more attention to plain psychology. I believe that there is room for an intermediate course, a continuation of the introductory course, which should lay more stress on physiological and experimental aspects" (u).

An advanced *general* course is frequently given [B 2]. In many smaller institutions only one advanced course can be offered. If the field of human psychology has been substantially covered in the introduction, the advanced course might attempt to outline the genetic standpoint (including educational and comparative psychology), social psychology, physiological psychology, abnormal psychology, experimental methods and theory, philosophy of mind, and some special topics such as the higher thought processes. This is rather a long program for even a two-semester course; the choice of emphasis will depend on the interests and training of the professor in charge and the traditions of the institution. We do not believe that either the genetic standpoint or experimental drill should be wholly omitted.

In the larger institutions the general practice seems to favor specialization. It may be doubted, however, whether this is not often carried too far in the undergraduate curriculum. It might be preferable to group the undergraduate experimental work into a single extended course, and the comparative and human genetic work into another, including individual and social psychology in the latter, with perhaps the elements of abnormal psychology.

In all but the very largest universities it is difficult to find sufficient students and trained instructors to justify offering many specialized courses. At moderate-sized institutions one such course might be offered, either in religious psychology, applied psychology, history, aesthetics, etc., according to the interests of the instructor. Often, however, these needs can be better met by opening the graduate courses to undergraduate students of exceptional ability.

In some places the plan of alternating courses has been adopted with some success, certain specialized courses being offered only every second year. This expedient may be recommended where the staff is inadequate for the full needs, and might even be adopted in larger institutions for special courses which appeal to a small number of students.

Logical sequence.—Your committee has not attempted a study of the prevailing order of courses. A number of writers discuss the proper development of the program. One says, "I have never believed in 'undergraduate programs.' I do not believe there is such a thing as 'psychology for undergraduates.' There is psychology; and one has to begin with a simple exposition of it, and proceed by degrees to first-hand acquaintance; but I had as soon begin at one place as another, with one branch as another, with one sort of course as another; the essential thing is only that the instructor is himself a psychologizing (and not a word) psychologist" (u).

Another writes, "Our greatest need in psychology is, in my opinion, a rigid adherence to the inductive method, to which every science owes its progress. Let our students begin with a painstaking accumulation of definite facts; let them then discover the general principles which inhere in their accumulations of facts, and let them then, but not until then, proceed to a discussion of psychological theories. Incidentally, I may add that I am fully convinced that nothing short of adequate laboratory courses can suffice to bring about the desired reform" (u).

Says a third, "We strive . . . to have a logical development from elementary course to the most advanced. According to this principle we now have immediately following our elementary course shorter special courses (genetic, social, educational laboratory, educational lecture, abnormal, æsthetics, general experimental). Then, after a student has had one or more of these special courses, he can go on in his third year, usually the senior, to the advanced laboratory or the advanced general" (u).

Your committee believes with one writer (u) that there may be more than one logical sequence, and that the desirable order depends on the size of the staff, the aims of the institution, and to a considerable extent on the personality of the instructor.

Courses for professional men.—Attention should be called to the demands by several writers for special courses adapted to the needs of men intending to enter professional life. "The relation of psychology to law, to medicine, and to advertising, ought to be given as three short courses" (m). "A special practice course [is needed] for premedical students following an introductory general courses" (m).

It may be doubted whether such courses are practicable in any of the smaller institutions. In some cases alternating courses might be offered in which the psychology of testimony, abnormal psychology, etc., are emphasized one year, and physiological and abnormal the next. Some arrangement should be made to meet the needs of prospective teachers; in the course in genetic psychology its educational bearings might be emphasized in one section of the class, if no educational courses are offered.

The Laboratory

Experimental psychology today is recognized as an integral part of the undergraduate work in psychology. Of the institutions examined, 71 devote more than one room specifically to laboratory purposes [C I, 2]. Many places without a laboratory possess simple apparatus quite adequate to demonstrate the fundamental experimental problems.

The term "experimental psychology" is not happily chosen. It is annoyingly ambiguous. Some of our replies dwell on the fact that all psychology should be experimental. Our colleagues in philosophy, on the other hand, distinguish between experimental and rational psychology; they reserve the latter field to themselves, and thereby claim suzerainty over all but the laboratory courses. Possibly the term "laboratory psychology" would obviate some of the confusion. Experimental, statistical, and observational methods are all empirical, and the courses in psychology which employ them should all be under the direction of trained psychologists.

Experimental work in the general course.—In smaller institutions, where psychology is limited to a single course, the experimental work is necessarily small. Your committee does not believe that in such institutions the course should be predominantly experimental. A general survey of the entire field, with an analytical exposition of psychological data and principles, seems to us somewhat more important for the beginner than experimental demonstrations and training in exact methods of experimental research.

Yet we believe that most members of the Association will agree that experimental or laboratory psychology should enter to some extent into the introductory course at any institution, small or large. In most cases, we believe, this should consist in class demonstrations rather than laboratory drill. Lists of class experiments have been

published, which involve only simple apparatus and devices within the means of any college. Another committee of the Association has this subject in hand.

First experimental course.—We need not discuss the laboratory program at the larger institutions, where men of recognized training and experience have shaped the course according to their own standards and interests. At such places an experiment on the teaching of experimental psychology is in progress, which it is not desirable to interrupt. There are, however, small institutions which offer separate laboratory courses, where the equipment is not sufficient to permit an elaborate set of experiments such as is outlined in a comprehensive laboratory manual. Several briefer texts and outlines have been published which aim to meet these needs, and your committee would suggest the preparation by the Association of a comprehensive classified list of simple laboratory experiments (with full description or reference), from which the individual instructor may draw according to his interests and resources.

We call attention also to the feasibility of providing a short laboratory course open to election in connection with the first course in psychology, (1) where the first course is required, and (2) where no subsequent laboratory course is available. Such a course, we believe, should consist so far as possible of actual laboratory work performed by the students themselves and not merely of demonstrations; nor should it include any large proportion of class experiments, since individual training is a prime objective in such a course.

Where the first experimental course is more extensive and is independent of the general introduction to psychology, many experienced laboratory workers emphasize the importance of devoting a large part of the course to *actual experiment* rather than to presentation of experimental results and discussion of principles.

Laboratory equipment and maintenance.—Our data show wide variations in the extent of equipment; 20 laboratories report either a nominal value or not exceeding \$500, while 2 estimate their equipment at over \$10,000 [C 3]. Some of the laboratories which report an equipment of \$1,000 or less are giving satisfactory undergraduate results. A few expensive apparatus, such as the Hipp chronoscope and a large kymograph, are very desirable, though they add to the cost. The duplication of apparatus for large classes also increases the cost considerably.

We believe that a further inquiry into the subject of equipment is desirable. Pending this, your committee would suggest that any laboratory which aims to give "experimental" courses should ask for an equipment fund of at least \$500.

The annual maintenance fund varies as widely as the value of equipment [C 4]. Some regular annual sum to cover wear and tear is essential. Our data indicate that the appropriation for maintenance amounts on the average to about 10% of the equipment. Pending further discussion the committee recommends that at least this proportion be asked for, with a minimum of \$50 annually where distinct laboratory courses are offered.

The problem of a fee for undergraduate laboratory courses should be considered. Your committee did not include this in the questionnaire. In some cases it was reported that a fee had seriously diminished the size of the class. This is not necessarily an argument against its exaction, after the course is well established. The committee believes that in this matter the same policy should be adopted in any institution for the psychological laboratory as for the other laboratory courses, with the understanding, of course, that the fee should be proportionate to the value of the equipment.

Number of students.—A relatively small number of students elect experimental psychology [C 5]. In only 8 cases were classes of over 40 reported, and in these institutions the psychological curriculum is apparently based upon experimental training and all students of psychology are expected to pursue a laboratory course. Here, again, your committee is not inclined to favor uniformity among the larger institutions.

For the smaller colleges one suggestion is in order: Laboratory work in psychology differs from the other sciences in the greater amount of supervision and instruction which the student requires, particularly at the outset. Neither the performance nor the experience gained is satisfactory unless the student is trained to exercise the same degree of precision with human subjects and in observing his own mental processes, as he is expected to use in dealing with inert physical substances. There is more opportunity for slipshod work in the psychological laboratory than in others, and there is more temptation on the student's part to work in a slipshod way. Only by careful supervision and patient instruction can he be brought to

realize that mental phenomena are precise and definite, even though they be complex and variable.

All this is merely to point out the impossibility of conducting large laboratory courses satisfactorily without a corps of trained assistants. In our large universities graduate students are available for this purpose; in the college which has no graduate department they are not. The instructor himself cannot well devote his time and energy to numerous laboratory appointments. In small institutions, therefore, it seems desirable to limit the number of students admitted to the laboratory course. The committee believes that 12 or 16 (in groups of 4) is the largest number that can be properly handled by one instructor without detriment to his other work. We believe, further, that in such institutions as much emphasis should be given to a broad genetic course as to the laboratory.

The Program as a Whole

Aim of undergraduate work.—In determining the plan of undergraduate courses in psychology we are confronted with two opposing views of the functions of college education. According to some educators its chief aim is to furnish a general culture training—a broad basis on which the later professional training shall rest. From this standpoint the college is not expected to offer technical courses in any branch; specialization should begin in the graduate department and in the various professional schools. According to the opposite view the upper years in the college may properly include a number of courses more or less technical in character, relieving the pressure of work in the professional schools. An expression of opinion on the relative merits of these two ideals is beyond the province of this committee. But certain general suggestions are in order.

(1) In institutions which aim to furnish preliminary technical training, the psychological department may well insist on introducing special courses suited to the needs of prospective medical and law students, teachers, etc. The average medical man is noticeably deficient in knowledge of mental disorders and even of the normal mental processes. The lawyer's knowledge of psychology is largely practical. The average teacher has little scientific knowledge of the child's mental growth. As matters now stand the psychological training urgently needed in all these professions can only be given in the college. It is surely not too great a degree of specialization for the undergraduate curriculum to offer "major" work in psychology

wherever the size of the staff and resources of the institution permit.

(2) For the prospective psychologist it is also important to acquire a thorough grounding in all branches of psychology during his undergraduate years. Says one writer, "The universities specializing in Ph.D. work in psychology do not offer enough advanced technical psychology. As a result the student from the average American university is asked to take over again, with very little change, the courses he has had as an undergraduate. The large universities train in research, but do not offer sufficient training in scholarship" (m).

(3) For the student who is seeking merely a general culture course, with no professional future in view, opportunities may well be afforded not merely for a broad general knowledge of adult human psychology, but also for a solid foundation in experimental principles, human mental development, and animal behavior.

From the student's standpoint.—Your committee has endeavored to ascertain (1) to what extent the courses after the introduction are elected by the student body, and which branches are most extensively chosen; (2) how the election of psychological courses compares with that in philosophy and biology. It appears that in more than half of the institutions reporting (and these include practically all our large universities), nearly half of the students follow up the first course with others [B 5]. Educational psychology is the branch most extensively elected, with experimental second [B 6].

Comparing the number with other departments, we find that psychology secures more students than philosophy in the majority of cases—often many times more [B 7]. Too much weight should not be attached to the figures, which appear in many cases to represent merely general impressions. A considerable number failed to answer this question. Nevertheless it would appear that psychology appeals generally to a larger number of undergraduates than philosophy.

The figures are less definite in the case of biology. Biology appears to be more extensively elected than psychology, but most of the answers failed to give any proportion. The questionnaire unfortunately did not inquire as to the relative election of psychology and education.

Number of courses.—While the data show that psychology is far more generally elected than philosophy, we find the number of

courses offered in psychology far smaller, reckoned in semester hours, and the staff accredited to psychology far less than that accredited to philosophy. Our table [General d] brings this out very strikingly. It may possibly be that philosophy covers a broader field than psychology and requires more time for adequate treatment. This question cannot properly be determined by either side *ex parte*.

Your committee recommends that psychologists take active measures to impress on administrative authorities the need of sufficient courses in psychology and the importance of psychology in the general curriculum. The number and variety of courses offered in psychology at any institution should be commensurate with the value of the branch, the proportion of students desiring it, and the general scope of the institution.

Character of the staff.—The character of the staff is a matter of even greater importance. Our survey has brought to light that in a large number of institutions the instruction in psychology is given, wholly or in part, by the titular professor of philosophy. In some cases this is due to tradition or to the terms of endowment. It is not always possible in smaller institutions to have distinct chairs in all branches nor even in every department of learning. In such cases there should be no objection to combining the chairs of philosophy and psychology (nor for that matter the chairs of physics and chemistry, or even English and biology), provided the incumbent is fully qualified in both subjects. We merely suggest that the *title* ought to correspond with the double function.

The real danger is that the incumbent's training on one side or the other may not be adequate to the task. This is liable to occur in the combination of psychology with either philosophy or education. It is a mistake to combine psychology with any other chair unless the incumbent is fitted by special training in both branches.

It is outside the province of this committee to express approval or disapproval of specific texts, educational methods, or individual plans of instruction. But we feel that this Association should express its distinct disapproval of undergraduate instruction in psychology by men who lack a fundamental training in the branch, whether they be naive, popular lecturers on catching topics, or really competent scholars in some other line.

Adequacy of the force.—Many institutions report that the staff in psychology is entirely inadequate and that the department is greatly overworked. Your committee feels that the personal equation should

be taken into account in estimating the value of these replies. Nevertheless, the fact that about one-third of those answering the questionnaire report that their department is undermanned, compared with neighboring branches, deserves serious consideration [E 11].

Your committee endeavored to compute approximately the amount of undergraduate teaching actually required of the average instructor of psychology. We reckoned each professor of "psychology and something else" as a half-man in psychology and omitted institutions which offer only three hours in psychology. Instructors were counted as half-men, and assistants were not included.

On this basis we find that, with a staff of one professor in psychology, approximately 8 hours per week of undergraduate instruction on the average is required of him [General f]. The amount diminishes as the size of the staff increases, more time being presumably allotted to graduate duties, research, writing, etc.

We believe that these figures measure fairly well, not the amount of actual classroom work, but the average professor's *responsibility* for undergraduate courses. Whether anyone whose work falls greatly below the average is shirking responsibility depends of course on the amount of administrative work or research he is performing. Those whose work greatly exceeds the average are probably undertaking more than they can perform and at the same time keep fully abreast with their subject.

Relation between undergraduate and graduate work.—It is neither possible nor desirable for all institutions to attempt graduate instruction. The number of undergraduate students in the country will always be greatly in excess of the graduates, just as secondary scholars exceed the number of college students. It would seem preferable therefore for the great majority of colleges to aim at developing their undergraduate courses exclusively, and to use their staff for that purpose. They should foster research work on the part of their staff as part of every professor's necessary training; but they should not attempt to keep their best students with them after graduation. Graduate work should be confined to institutions specially equipped for the purpose; it is carried on to the best advantage where a fairly large body of students are working together and obtain the benefits of mutual intercourse.

Nevertheless, the undergraduate curriculum in all colleges should be planned with some reference to the student's future as a graduate

worker, and the psychologist at colleges without graduate departments should keep in touch with the work, methods, and aims of the larger universities. We have already quoted one criticism on this point.

The question [E 5] regarding the training of psychologists was misunderstood in many cases, and a considerable number of the negative answers are due to this misapprehension. It is clearly beyond the province of the undergraduate curriculum to *train* psychologists, but the first step in such training may well be taken in the college course. Many members of this Association do not believe in differentiating sharply between undergraduate and graduate work. Says one writer, "The iron-clad rule here that undergraduates (including seniors) cannot take a graduate course takes the heart out of the possibility of arranging an attractive program for undergraduates. We offer courses in graduate work which might very well be open to seniors, but we cannot let them enter" (u). Perhaps in the larger institutions there should be no border-line. But in small colleges some rather definite limitation of function is necessary to prevent waste of energy through attempting too much.

The difference in position and facilities of the smaller college and the larger institution, with or without much graduate work, must be recognized. The same line of work, or even the same type of introductory course, cannot at the present time be urged successfully for both. The main thing is that the general or introductory course should be *something* in aim, content, and method and not a mixture of anything and everything.

For all institutions alike, however, it is possible to urge certain standards for the *teacher*: that he shall have had an adequate training, including not only laboratory psychology (even though he has no laboratory at command or cares nothing about making the elementary course experimental) but an adequate grounding in science, especially physiology.

Many graduate students complain of the narrow range of their laboratory work in psychology; they say in effect that in physics, chemistry, biology, etc., there are recognized principles with which the details obviously connect, while they do not get these principles in the psychological laboratory, but rather a laboratory technique and many details as to the senses, etc. Your committee believes that this question must be faced. If the generally recognized principles are there, they should be developed. If they are not, the fact must be taken into account, and the question considered how far laboratory

work in psychology should be advised except for students who expect to continue the subject to a considerable degree.

Your committee ventures to suggest, as a practical norm, that the undergraduate program in psychology be considered in the light of a propædæutic. The specializing student may be trained in his undergraduate years so that he will be fitted to undertake research work *at once* after graduation. We do not believe that the undergraduate course should attempt to include research work in its program.

Recommendations

Your committee has endeavored to throw light on some of the problems connected with instruction in psychology at our colleges and universities. The present inquiry is merely a beginning. The questionnaire was far from complete, and only part of the data collected have been used. Many of the problems require far deeper investigation than was possible in the time at our disposal. The academic status of psychology bears directly upon the future of psychology, in so far as it determines the character of the future generation of psychologists. We believe that the Association should take it into earnest consideration.

We recommend, (1) That a standing committee of this Association be appointed to continue the work of this interim committee. We suggest that it include a representative of the smaller institutions, an experimentalist, a genetic or comparative psychologist, and at least one member with practical experience in the broad psychological curriculum.

(2) That at each annual meeting of the Association some topic be chosen for discussion which bears on the teaching of psychology.

(3) That the Association adopt the principle that the undergraduate psychological curriculum in every college or university, great or small, should be planned from the standpoint of psychology and in accordance with psychological ideals, rather than to fit the needs and meet the demands of some other branch of learning.

Respectfully submitted,

HOWARD C. WARREN, *Chairman*

JOHN DEWEY

CHARLES H. JUDD

December 30, 1914



TABLES

(Note.—The tables are lettered and numbered to correspond to the questionnaire; unless otherwise specified, the data in the tables denote NUMBER OF INSTITUTIONS.)

Scope of Inquiry

Catalogues examined, data sent for verification	163
Catalogues unobtainable, data requested from psychologist	18
Total institutions communicated with	181
Total data verified, with questionnaire (These institutions make up the <i>questionnaire</i> tables)	124
Data from catalogue, not verified by psychologist	41
Total institutions included in report (These make up tables marked *)	165
Questionnaire sent to more than one in institution, 65; replies, 28	

A. First Course in Psychology

- (1) Length of course:
- | | | | | |
|----------------|-----|-----|------|---------|
| Semester hours | 1-4 | 5-8 | 9-12 | Miscel. |
| Institutions | 92 | 28 | 1 | 3 |
- (2) Is it required?
Yes, 38; partly, 37; not required, 48; no answer, 1
- (3) Time devoted to general presentation:
- | | | | | |
|-----------------|--------|-------|------|-----------|
| Percent of time | 100-76 | 75-51 | 50-0 | No answer |
| Institutions | 47 | 42 | 21 | 14 |
- (The remaining time is devoted to special topics)
- (4) Method:
- | | | | | | |
|------------------------|--------|----------------------|---------------------|---|-----------|
| Percent of time | 100-67 | 66 $\frac{1}{2}$ -34 | 33 $\frac{1}{2}$ -1 | 0 | No answer |
| Lectures | 18 | 38 | 54 | 4 | 10 |
| Recitation and quizzes | 11 | 35 | 58 | 5 | 15 |
- | | | | | | | |
|---------------|--------|----------|-------|------|----|-----------|
| | "Some" | Over 20% | 20-11 | 10-1 | 0 | No answer |
| Written tests | 58 | 2 | 24 | 25 | 0 | 15 |
| Demonstration | 50 | 7 | 18 | 16 | 4 | 29 |
| Laboratory | 15 | 8 | 3 | 9 | 35 | 54 |
- Theses required, 39; no theses, 25; no answer, 60
- (5) Does it serve also as introduction to philosophy?
Yes, 45; in a measure, 7; no, 63; no answer, 9
- [E 2] Is it a real introduction to psychology?
Yes, 107; no, 9; no answer, 8
- (6) Chief interests of instructor:
- Psych., 72; psych. and phil., 19; phil., 19;
biol. (and psych.), 7; varied, 6; no answer, 1

B. Other Undergraduate Courses in Psychology

(1) Are any offered?

Yes, 113; no, 8; no answer, 3

* (Catalogues) Yes, 124; no, 38; no data, 3

* Institutions offering 9 hours or more in psychology, 111

(2) Is there an advanced general course?

Yes, 39; no, 75; no answer, 10

*(3) Are there specialized courses in or outside the department?

Yes, 119; no, 43; no data, 3

Genetic, comparative, etc., 105; no, 57

Experimental, 83; no, 79

Applied or vocational, 25; no, 137

Physiological, 22; no, 140

*(a) Distribution of Courses and Hours in Psychology:

Semester Hours	1-4	5-8	9-12	13-16	17+	Total
General	66	56	22	8	10	162
Genetic, etc.	40	33	21	8	3	105
Experimental	34	23	19	3	4	83
Physiological	9	2	—	—	—	11
Vocational	21	2	—	—	—	23

"General" includes Historical courses and special topics of "General Psychology"

"Genetic" includes Educational, Comparative, Individual, Social, Abnormal, etc.

*(b) Distribution of Special Courses in relation to General:

Exper.:	General=1-4 hours				General=5-8 hours					
	0	1-4	5-8	9-12	0	1-4	5-8	9-12	13-16	17+
Genetic										
0	25	4	1	—	14	2	—	—	—	—
1-4	9	8	—	3	7	5	1	1	—	1
5-8	6	4	2	—	3	4	5	—	1	—
9-12	1	2	—	—	—	2	4	1	—	1
13-16	1	—	—	—	—	1	—	—	—	1
17+	—	—	—	—	1	—	1	—	—	—

Exper.:	General=9-12 hours				General=13+ hours					
	0	1-4	5-8	9-12	0	1-4	5-8	9-12	13-16	17+
Genetic										
0	5	—	—	1	1	—	1	1	2	—
1-4	1	—	2	1	—	—	—	—	—	1
5-8	2	—	1	—	2	1	—	2	—	—
9-12	1	1	3	—	—	—	2	3	—	—
13-16	—	—	—	3	—	—	—	2	—	—
17+	—	—	—	1	—	—	—	—	—	—

Figures above and at side denote semester hours

Figures in the table denote number of institutions (Total 162)

- (4) Psychological courses offered outside department of psychology :
Yes, 58; no, 41; no answer, 25
- [E 9] Would it be an advantage to *transfer* such courses to the department?
Yes, 21; no, 25; no answer, 12
Understood as, "Should such courses be *given* in the department?"
Yes, 29; no, 58; no opinion expressed, 37
- (5) Proportion of students taking first course who elect others :

Percentage	100-61	60-41	40-21	20-0	Indefinite
Institutions	23	25	29	14	33
- (6) Branch most extensively elected :

Ed.	Exp.	Soc.	Gen.	Comp. etc.	Abn.	Voc.	Relig.	Others
30	21	18		16	14	7	4	5

(Where two preferences are stated, each is counted as one)
- [E 3] Branches inadequately represented :

Exp.	Gen. & Comp.	Phys.	Ed.	Soc.	Abn.	Voc.	Relig.	"None"
28	26	18	15	13	11	7	6	4

(Also a few scattering. Each branch mentioned is counted as one)
- [E 4] Branches overemphasized :

"None"	Ed.	Exp.
25	10	7

(Also a few scattering)
- (7) Students electing psychology :
 (a) Compared with philosophy :

3 t.	3-2 t.	2-1 t.	Equal	Less	No answer
26	9	27	17	9	36

(First line denotes "3 or more times as great," etc.)
Total institutions reporting psychology greater, 62
- (b) Compared with biology :

Greater	Equal	Less	No answer
19	17	24	64

C. Laboratory (80 reports)

*(1) Have laboratory, 88; no laboratory, 77

(2) Size of laboratory:

Rooms	1	2-4	5-10	11-20	21+	No answer
Institutions	8	26	21	19	5	1

(3) Value of equipment:

Nominal	\$501	\$1501	\$3001	\$6001		
to	to	to	to	to	Over	No
\$500	\$1500	\$3000	\$6000	\$10,000	\$10,000	Answer
20	22	22	5	5	2	4

Total value of equipment in 56 larger laboratories, \$163,000.

(4) Annual appropriation:

		\$100	\$200	\$300	\$400	\$500	\$600	\$700		
Irreg.	Under	to	to	to	to	to	to	to	\$1000	No
	\$100	\$199	\$299	\$399	\$499	\$599	\$699	\$999	or over	Ans.
14	6	10	11	8	1	9	4	3	7	7

[E 10] (a) Equipment adequate, 52; inadequate, 25; no answer, 3

(b) Laboratory needed, 18; not needed, 7; no answer, 19

(Note, *b* refers to institutions which have no laboratory)

(5) Number of undergraduates electing experimental psychology:

Size of class	0	1-10	11-20	21-40	41+	No answer
Institutions	3	21	20	15	8	13

(6) Semester hours devoted to laboratory work:

Hours	1	2	3	4	5+	No answer
Institutions	7	13	12	18	16	14

(7) Proportion of experimental course devoted to demonstrations:

(Replies too indefinite to present in tabular form)

(8) Services of a mechanic:

Full time, 3; part time, 26; none, 38; no answer, 4

(In one case a mechanic and assistant are connected with the department)

D. Organization of Department

*(Catalogue data)

Department of Psychology	34
—of Philosophy and Psychology (or v. v.), courses listed sep.	31
—of Education and Psychology (or v. v.), “ “ “	8
—of Philosophy, courses listed separately	41
—of Education, “ “ “	3
—of Philosophy and Psychology, courses listed together	8
—of Education and Psychology, “ “ “	2
—of Philosophy, “ “ “	36
—of Education, “ “ “	2

General

- (a) [E 1] Are the opportunities in psychology adequate compared with other departments?
Yes, 69; yes, compared with some, 7; no, 41; no answer, 7
- (b) [E 5] Are there opportunities for training psychologists?
Yes, 49; no, 65; no answer, 10
- (c) [E 11] Is the department adequately manned compared with others?
Yes, 62; no, 41; no answer, 21

(Note.—Questions grouped under E called for expressions of opinion rather than statements of fact. Many of the data have been tabulated under previous heads. The remainder furnished valuable suggestions for the report, but the replies do not lend themselves to tabulation)

- * (d) Comparison of Undergraduate Work offered in Psychology and Philosophy:

Philos.:	1-4	5-8	9-12	13-16	17-20	21-24	25+
Psychol.							
1-4	1	2	5	4	2	5	3
5-8	—	3	3	4	8	3	5
9-12	—	5	5	5	8	1	6
13-16	—	—	3	4	1	1	3
17-20	—	—	1	3	1	3	9
21-24	—	—	3	2	—	2	3
25+	—	1	2	2	—	2	27

Figures at the top and side denote semester hours
Figures in the table denote number of institutions
Data lacking in 14 institutions

- * (e) Comparison of Undergraduate Work with Size of Faculty:

Faculty:	15-30	31-60	61-125	126-300	301+
Hours					
1-4	9	4	3	7	1
5-8	10	9	6	4	—
9-12	13	7	5	3	—
13-16	2	6	2	4	1
17-20	—	4	10	4	—
21-24	2	4	2	2	—
25+	—	2	7	10	15

Figures in the table denote number of institutions
Data defective in 7 institutions

- * (f) Size of Staff in Psychology and Number of Undergraduate Hours:

Staff	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	5
Institutions	58	29	15	12	5	8	3
Average Hours	10.6	16.1	24.2	29.1	28	29.8	46
Per Man per Week	10.6	8.0+	8.0+	7.2+	5.6	4.9+	4.6

(Not including 20 institutions offering only 3 hours, 11 data lacking, 3 with large staff. Third line represents average "semester hours" offered at institutions, ranged according to size of psychological staff. Bottom line represents average "weekly responsibility" of each member of staff in psychology; semester hours are divided by 2, since two semesters make up the year's work)







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